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Figure: 4-5
Avoidance Alternative for the Provo Viaduct

★ Residential Relocations ★ Business Relocations Direct Use (non de minimis)



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- **Bridge Safety:** Even if the reconstructed Provo Center Street interchange could be shifted in a way that avoided the Provo Viaduct and other Section 4(f) resources, the existing viaduct is an unsafe structure that would not be left standing for safety reasons. The Provo Viaduct has been deemed structurally deficient and functionally obsolete, with a sufficiency rating of 31.5 from a possible 100 points under FHWA's and UDOT's Structure Inventory and Appraisal system. This qualifies the viaduct for demolition and replacement under the FHWA National Bridge Inspection Standards (NBIS). The bridge rail, approach rail and transition do not meet AASHTO design criteria for safety and are considered substandard. Leaving the structure standing creates a safety risk for the underlying railroad tracks, which in addition to their current traffic will carry commuter rail passenger trains when the Provo to Salt Lake Frontrunner begins operation.

Based on the above, it was concluded that no feasible and prudent avoidance alternatives exist for the Provo Viaduct, and that use of the Provo Viaduct, rather than the use of the many historic structures that would be taken under a north or south alignment shift, would result in the minimal Section 4(f) use, particularly since the Provo Viaduct would likely be demolished for safety reasons even if it could be avoided.

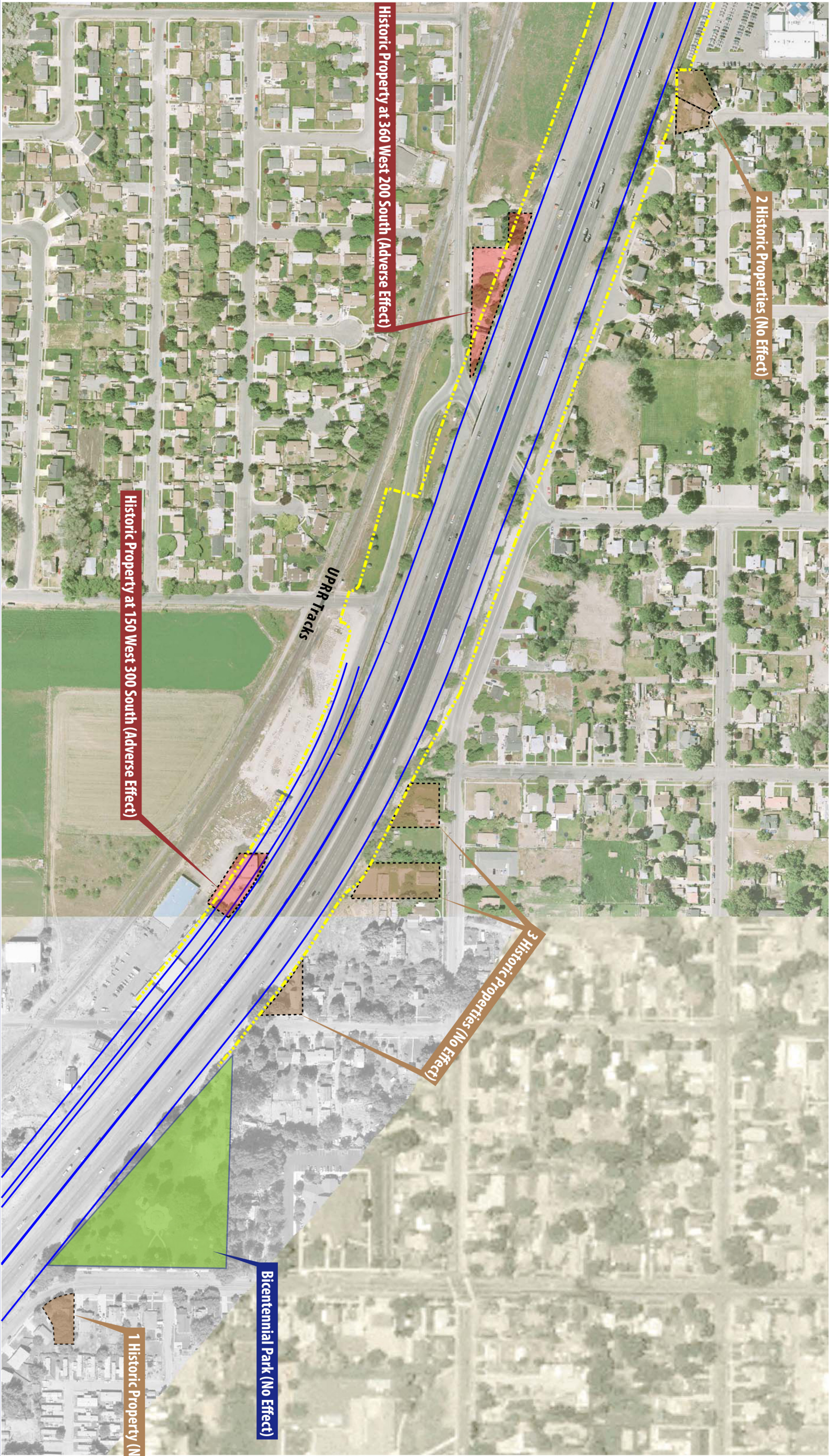
4.6.2.2 150 West 300 South, American Fork (Building Reference #50) and 360 West 200 South, American Fork (Building Reference #56)

These two Section 4(f) resources are discussed together because they are located in close proximity to each other; both are located west of I-15 within about 1,700 feet of each other. Implementation of the Proposed Action (Alternative 4) would require a direct use (not *de minimis*) of both the historic properties located at 150 West 300 South and 360 West 200 South American Fork as shown in Figure 4-6. Within the American Fork area of I-15 near the Main Street interchange there are eight historic properties; two are located on the west side of I-15 and six on the east side. In addition, the Bicentennial Park (owned and maintained by American Fork City, see Tables 4-2 and 4-4) is located on the east side of I-15. All these resources are provided protection under Section 4(f) and are shown in Figure 4-6. An eastern alignment shift was the only potential feasible and prudent alignment to avoid these Section 4(f) resources. However, an eastern alignment shift as a potential avoidance alternative was determined not to be a feasible and prudent avoidance alternative for the following reasons:

- **Increased the number of Section 4(f) Uses (not *de minimis*):** An eastern alignment would require the direct use (not *de minimis*) of five historic Section 4(f) resources and a direct use of Bicentennial Park. Therefore, the Proposed Action in this location actually causes the least net harm to Section 4(f) resources, by completely avoiding uses to the resources located on the eastside of I-15.
- **Increased Environmental Impacts and Relocations that reach Extraordinary Magnitude:** An eastern alignment shift would require the relocation of 22 residential properties located directly east of I-15 (see Figure 4-7). The Proposed Action would require relocation of four properties; two of which are the Section 4(f) resources. Also, an eastern alignment shift would require impacting the Bicentennial Park and a number of its large and mature trees.

The I-15 mainline alignment in this location was designed as a minimization of harm to Section 4(f) resources. Aligning and widening the I-15 mainline to the west creates a Section 4(f) use of two Section 4(f) resources (150 West 300 South and 360 West 200 South). However, this same alignment avoids direct use (not *de minimis*) of seven Section 4(f) resources (six historic properties and the Bicentennial Park). The avoidance alternative for the two properties on the west side of I-15 is not considered prudent because it increases environmental impacts such as relocations, including the adverse effects on other Section 4(f) resource on the east side of I-15.

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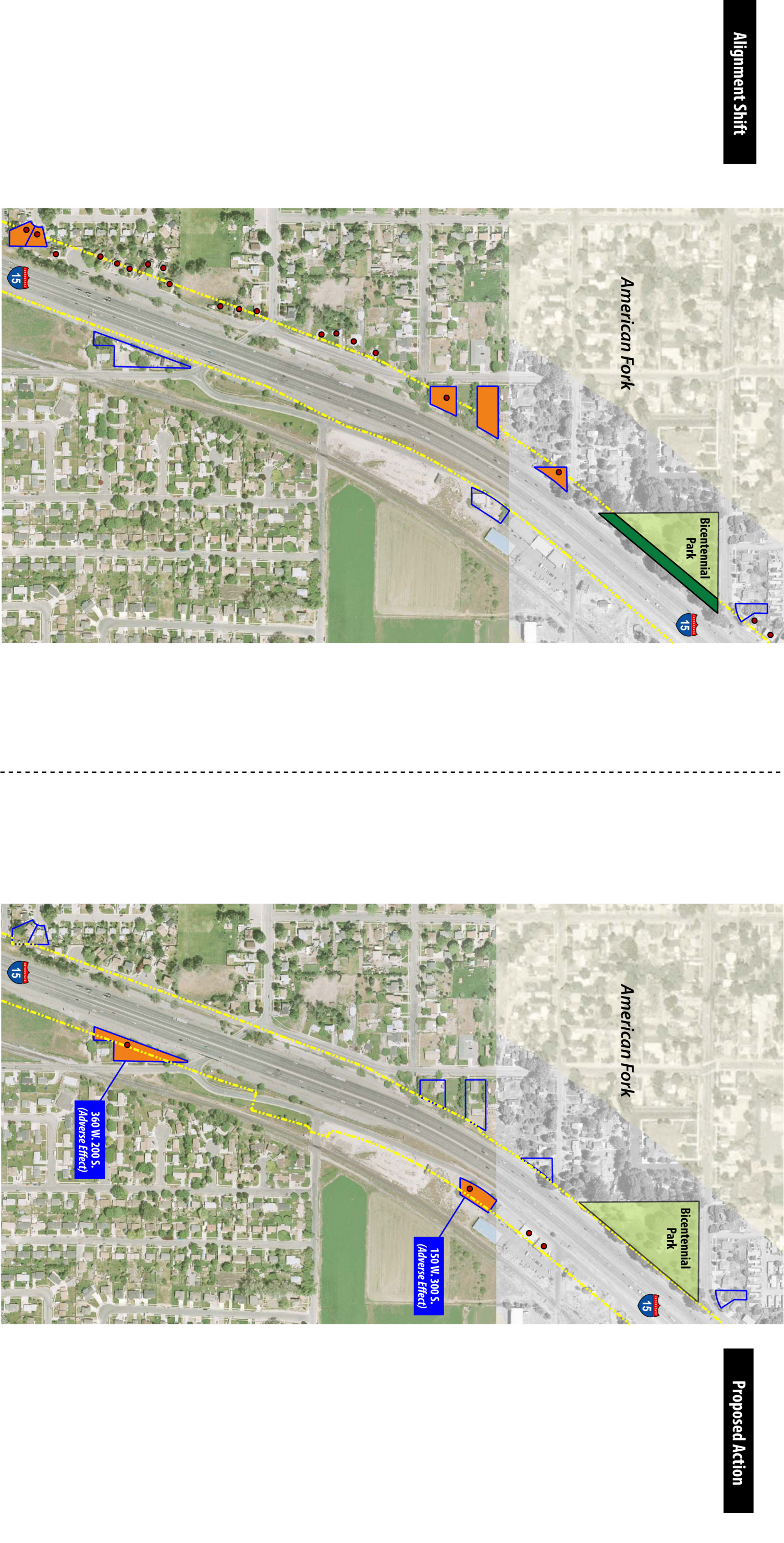


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Figure: 4-6
Proposed Action for American Fork Area



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Figure: 4-7
Alignment Shift for American Fork

- Relocations
- Historic Properties - No Section 4(f) Use
- Historic Properties - Section 4(f) Use
- Parks - No Section 4(f) Use
- Parks - Section 4(f) Use



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4.6.3 Least Overall Harm

As described in Section 4.2.1.5, the FHWA may approve only the alternative that causes the least overall harm to Section 4(f) resources. For this project, all Section 4(f) impacts would occur in common areas of the build alternative. No Section 4(f) impacts would occur in the option areas in Provo/Orem or at American Fork Main Street. Therefore, there are no alternatives, options, or combinations of options that require a comparison of overall harm.

4.6.4 Mitigation for Historic Properties

Consultation with the Utah SHPO regarding NRHP eligibility and effects resulting from a proposed undertaking is required through preparation of a DOE/FOE. As described in 4.5.2 (also in 3.16.1.5), a DOE/FOE for this project was approved by the Utah SHPO in October 2007 and two addendums have been submitted and approved by the Utah SHPO (Appendix A). Because this project will result in adverse effects and avoidance is not possible, a Memorandum of Agreement (MOA) has been prepared to outline responsibilities and measures to mitigate or reduce adverse effects. The ACHP, tribes, certified local governments and interested persons were notified of the potential adverse effects and invited to participate in development of the MOA. Signatories include FHWA, UDOT and SHPO. The MOA was signed May 15, 2008 and is in Appendix A.

Mitigation of adverse effects to the Provo Viaduct will document the bridge to Intensive Level Survey (ILS) standards, set but the Utah State Historic Preservation Office. Mitigation efforts will also document approximately 30 post-WWI bridges in Utah County, to the same standard. For the two historic properties in American Fork, mitigation will document the historic structure on each parcel to ILS standards.

4.7 Consultation and Coordination

Consultation and coordination with the agencies with jurisdiction over the Section 4(f) and 6(f) resources and other interested parties is ongoing and will continue throughout development of the EIS. The relevant Section 4(f) and 6(f) resources and their respective agencies are listed below, including descriptions of consultation and coordination that have occurred to date.

4.7.1 Section 6(f) Resources —USDOI, Utah Department of Natural Resources (UDNR), Division of Parks and Recreation

In a letter dated October 8, 2004, USDOI responded to the notice of intent to prepare an EIS for I-15 improvements. The letter identified North Park in Spanish Fork as an LWCF Act property that may be within the project study area and should be considered during preparation of the EIS. In May 2007, the Grants Coordinator for the UDNR Division of Parks and Recreation was contacted regarding any parks or facilities that may have been acquired or developed with funds under Section 6(f) of the LWCF Act since 2004. In response, the Grants Coordinator identified that Hillman Fields in Payson and the Provo River Parkway Trail in Provo had received LWCF Act grants since 2004.

On February 12, 2008, the Grants Coordinator for the UDNR Division of Parks and Recreation was contacted in response to a comment received from the USDOI during the public comment period for the DEIS. The comment stated that three additional parks may be impacted by this project: Smith Fields Park, Utah Lake State Park, and Meadows Park. Discussion with the Grants Coordinator established that Santaquin Meadows Park, is located in Santaquin at 400 East 610 South, approximately 4.64 miles southeast of the South Payson interchange, the southern terminus of the project. Additional investigation determined that Smith Fields Park is located in Draper, more than 0.29 miles east of I-15 and Utah Lake State Park is located in Provo, more than 2 miles west of I-15. Both of these resources are located outside the one-quarter mile study area for recreation resources.

4.7.2 Provo River Parkway Trail—USDOI, Utah Department of Natural Resources (UDNR), Division of Parks and Recreation, Provo City, and Utah County

Information obtained from the Grants Coordinator for the UDNR Division of Parks and Recreation in May of 2007 indicated that the portions of the Provo River Parkway Trail improved with LWCF Act grants were not located near I-15.

On August 27, 2007, a meeting was held with Provo City to discuss potential impacts on the trail during construction. The city stated that it had no objection to closing the trail for reconstruction of the bridge, as long as a detour was available at 820 North or Center Street during the construction period. The city also expressed interest in widening the trail from 5 feet to 10 feet under the bridge.

Provo City agreed that the assertions presented above would not adversely affect the ongoing functionality of the Provo River Parkway Trail for recreational use during the widening and reconstruction of I-15, in writing, on May 1, 2008.

4.7.3 Historic and Archaeological Resources—Utah SHPO and ACHP Pursuant to NHPA Section 106

A Class III archaeological resources inventory and reconnaissance-level survey of buildings were performed, and a DOE/FOE was submitted to the Utah SHPO by UDOT and FHWA. Section 3.16 Cultural Resources and Section 4.4.2 Historic Properties outline SHPO consultation for this project. FHWA informed the Utah SHPO of its intent to make a *de minimis* impact finding based on the Utah SHPO's written concurrence in the NHPA Section 106 determination. An MOA is being prepared and executed between FHWA, UDOT, and SHPO prior to construction of the project. FHWA will also consider the views of any consulting parties participating in the Section 106 consultation before making a finding of *de minimis* use.

In a letter dated January 12, 2005, the Utah Geological Survey (UGS) reported that 1) the project qualified for treatment under the memorandum of understanding between UDOT and UGS (UCA-63-73-19), which means that a file search is adequate for documenting paleontological localities within the project corridor; 2) based on a file search, there are seven known paleontological localities within the project right-of-way; 3) if fossils are discovered as a result of construction activities, a paleontologist should be notified; and 4) this project should have no impact on paleontological resources.

4.7.4 Archaeological Resources—Native American Tribes

FHWA is responsible for contacting and consulting with the Native American tribes for the project. A project description and vicinity map were sent to the affected tribes, along with a request for any information they may have about the project area, in December 2004. No responses were received. A second letter was sent in May 2007, and only the Confederated Tribes of the Goshute Reservation responded, indicating they had no comment on or objection to the proposed project. No other responses were received.

4.8 Section 4(f) Determination

Based on the above considerations, there is no feasible and prudent alternative to the direct use of the Provo Viaduct, 150 West 300 South in American Fork or 360 West 200 South in American Fork, and the proposed action includes all possible planning to minimize harm to the Provo Viaduct, 150 West 300 South in American Fork or 360 West 200 South in American Fork.